

Amendment & Reconsideration  
Serial No. 10/658,639

Docket 5000-1-433

**REMARKS**

Entry of this Amendment and reconsideration are respectfully requested in view of the amendments to the claims and the remarks herein.

Claims 1-20 are pending and stand rejected. Claims 1, 3, 5, 9, 14, 15, and 19 have been amended. Claims 7, 8 and 20 have been cancelled.

Claims 1-20 stand rejected under 35 USC § 103(a) as being unpatentable by Ono, et al (US6,388,786) in view of Kitajima et al (US 5,515,196) and Kaiser et al (Kaiser et al., "Reduced Complexity Optical Duobinary 10 Gb/s Transmitter Setup Resulting in an Increased Transmission Distance," IEEE Photonics Technology Letters, Vol. 13, No. 8, August 2001, page 884-886).

The Examiner has rejected the claims as being obvious by essentially arguing that it would have been a matter of replacing the D-flip-flop of Ono with a T-flip-flop of Kitajima and using both outputs of the T-flip-flop.

Applicant respectfully disagrees with and explicitly traverses the rejection of the claims. However, applicant has elected to amend the claims to recite the invention in better form. Specifically, the independent claims have been amended to recite that the output signal has a first phase dependent upon a first state of a first port of the T-Flip-Flop and a second phase dependent upon a second state of the first port of the T-Flip-Flop.

No new matter has been added. Support for the amendment may be found at least in Figure 5 of the instant application.

The combination of Ono and Kitajima would not create a device that generates an output having a phase that is correlated with the output of the T-flip-flop, as recited in the amended claims.

For example, with a D-flip-flop the Q output always takes on the state of the D input at the moment of a rising clock edge, and never at any other time. Thus, the Q output takes the value of the D input and delays it by one clock count. The T-flip-flop, on the other hand, is a frequency divider that divides the clock input by two. Thus, the output of the T-flip-flop incorporated into Fig. 18 of Ono would cause the output signal to have a frequency of one-half that of the input NRZ signal.

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Hence, the incorporation of the T-flip-flop in the teaching of Ono alters the principles of the teachings of Ono and as such would render Ono unfit for the purpose for which it was designed.

In determining obviousness, the courts have found that

"If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious" (*In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)). MPEP §2143.01, p. 2100-132.

As the output of the modified Ono device would alter the operation of the Ono device operation, the combination of the cited references does not render obvious the invention claimed in independent claims 1, 9 and 15.

For the amendments made to the claims, applicant submits that the rejection of the claims has been overcome and respectfully requests that the rejection of the independent claims be withdrawn.

With regard to the remaining claims, these claims depend from the independent claims and, thus, these claims are also allowable by virtue of their dependency upon an allowable base claim.

For the arguments presented herein, we believe that the rejection of the claims would be overcome and would request that the Examiner withdraw the rejections.

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For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,



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